

INTEGRATED REDESIGN OF MUNICIPAL SHOP & ROADWORK FACILITIES

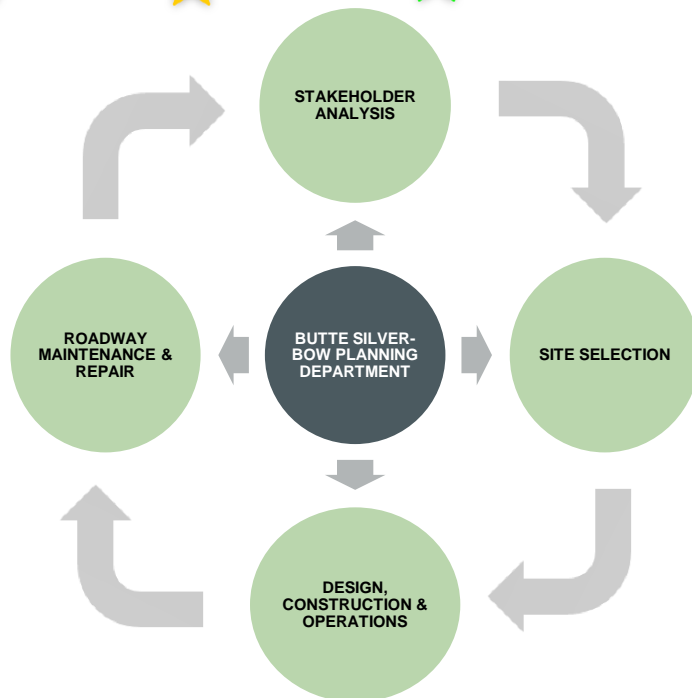
BUTTE- SILVER BOW COUNTY, MONTANA



AERIAL SITE VIEW IN BUTTE, MONTANA



★ Old Site ★ New Site ★ Silver Bow Creek



THE PROBLEM

The relocation of municipal road services offers Butte, Montana the opportunity to address the potential for sustainable urban infrastructure in the aftermath of a government-mandated superfund cleanup. The proposed site, at the confluence of Butte's primary environmental and civic challenges, can help Butte's Department of Planning address the damage done by late 19th century mining practices, which left nearby Silver Bow Creek significantly damaged. The Creek, only recently elevated from "storm drain" status in some areas, has become the symbol of the city's environmental rejuvenation.

Moving the municipal shops and asphalt plant onto a nearby remediated superfund site will allow the municipality to re-think facility design and operations to establish best practice. This is Butte's opportunity to challenge business-as-usual and move towards a more sustainable future. Whether it be through the identification of synergistic plant design elements, or the adoption of a new technology that makes winter road maintenance more efficient, a shift in status-quo requires investigation...

OUR SOLUTION

Our solution is threefold. The deliverables will include

- **A sustainability handbook, including chapters on**
 1. Site selection
 2. Design and construction
 3. Operations
 4. Roadway maintenance and repair
 5. Stakeholder analysis
- **A compendium of industry case studies**
- **An interactive research database**

HYBRID METHODOLOGIES

In order to deliver our solution, the team adopted a number of hybrid methodologies including

- **A thematic literature review**
- **A stakeholder analysis and rubric**
- **A case study analysis and rubric**
- **Collaboration with Montana State University architecture students**

SUSTAINABILITY MANAGEMENT CAPSTONE | SPRING 2015

FACULTY ADVISOR - LYNNETTE WIDDER

DANA McMANAMON, PROJECT MANAGER | JAMES EUSTACE, DEPUTY MANAGER

PATRICK CARROLL | SCOTT McCORMICAN | KELUNNI MENON | TOM PACIONI | MAXIM SEMYONOV